CHAPTER 1

Starting to Draw

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In this chapter, I explain the essentials that you need to start drawing. After a little background, I discuss the basics of the screen that you see when you open AutoCAD or AutoCAD LT, and how to use it. If you've never used AutoCAD before, do the "Quick Start: Drawing a Window" chapter first.

AutoCAD and its younger sister, AutoCAD LT, are both created by Autodesk. Together they are the most widely used technical drawing programs anywhere. AutoCAD alone has more than 6,000,000 registered users. According to Autodesk, CAD stands for *computer-aided design,* but it can also stand for computer-aided *drafting* or *drawing*.

The first version of AutoCAD, running under DOS, came out in 1982. AutoCAD was the first significant CAD program to run on a desktop computer. At the time, most other technical drawing programs ran on high-end workstations or even mainframes. AutoCAD LT was introduced in 1993, as a less expensive alternative to AutoCAD, for people who don't need all of AutoCAD's advanced features.

IN THIS CHAPTER

- **Getting acquainted with AutoCAD and AutoCAD LT**
- **Starting a new drawing**
- **Exploring the AutoCAD and AutoCAD LT interface**
- **Storing your drawing**
- **Closing a drawing and exiting AutoCAD and AutoCAD LT**

Exploring AutoCAD's Advantages

AutoCAD's success has been attributed to its famous *open architecture* — the flexibility that the end user has to customize the program by using source code files in plain text (ASCII) format — and programming languages (such as AutoLISP, VB.NET, C#, and C++).

As a result, AutoCAD is an extremely flexible drafting program, applicable to all fields. AutoCAD's support for languages other than English, including those using other alphabets, is unparalleled, making AutoCAD highly popular abroad. As a result, AutoCAD is used in all disciplines and in more than 150 countries.

Through a high level of technical innovation and expertise, Autodesk has created a program with advanced features and capabilities, including 3D surface and solid modeling and visualization, access to external databases, intelligent dimensioning, importing and exporting of other file formats, Internet support, and much more.

The major disciplines that use AutoCAD are:

- Architectural, Engineering, and Construction (AEC)
- Mechanical
- Geographic Information Systems (GIS)
- Surveying and Civil Engineering
- Facilities Management
- Electrical/electronic
- Multimedia

However, AutoCAD has many other lesser-known uses, such as pattern making in the garment industry, sign making, and so on. In this book, I provide examples from several fields. The world of AutoCAD is very broad, and you can learn from seeing the many approaches that AutoCAD makes possible.

Comparing AutoCAD and AutoCAD LT

AutoCAD LT's advantages are its lower cost and its compatibility with AutoCAD. The programming code that is used to create AutoCAD LT is a subset of the code used in AutoCAD. Here are the major differences between AutoCAD and AutoCAD LT:

- AutoCAD includes features that enable CAD managers to hold drawings to certain standards, such as for layer names and text styles. AutoCAD LT doesn't contain these features.
- AutoCAD LT is not as customizable as AutoCAD, which is both programmable and fully customizable. It also doesn't include the Action Recorder.
- AutoCAD LT includes minimal options for 3D; AutoCAD includes a full-featured 3D capability.
- AutoCAD LT has fewer presentation features than AutoCAD, which includes visual styles and 3D rendering.
- AutoCAD LT is deployable on a network but does not have AutoCAD's network license management feature that includes reporting and flexible licensing.
- AutoCAD LT does not offer the database connectivity feature, but you can use tables to connect to data in a Microsoft Office Excel file; AutoCAD offers the flexibility to connect to other types of databases, create labels from the data, and so on.
- AutoCAD LT does not come with Express Tools, a set of additional routines that ship with AutoCAD.
- AutoCAD LT does not include parametric constraints, which allow you to constrain the relationships among objects, but you can use the parametric constraints that are in a drawing that was created with AutoCAD.

New Feature

Sheet sets, after being in AutoCAD for a long time, have now made their way into AutoCAD LT 2012. ■

AutoCAD and AutoCAD LT have a few other minor differences, as well. Some of these differences are only in the user interface, so you can accomplish the same task but the procedure is slightly different.

Starting AutoCAD and AutoCAD LT

This section starts a quick tour of AutoCAD and AutoCAD LT. The first step is to start the program.

On the DVD

The DVD contains a 30-day trial version of AutoCAD 2012 and AutoCAD LT 2012. ■

This book covers AutoCAD 2012 and AutoCAD LT 2012 running on Windows XP Home/Professional, Windows Vista, or Windows 7. (The figures were taken in Windows 7.) Every computer is set up somewhat differently, so you may need to adjust the following steps slightly. If you didn't install the software yourself and are unfamiliar with the folders (also called *directories*) on your computer, get help from someone who is familiar with your computer system.

Note

AutoCAD is now available for the Mac OS; this book doesn't cover it, but you can find out more and get a free trial from the Autodesk website. Go to `www.autodesk.com/autocadformac` **to learn more. ■**

Cross-Reference

If you need information on installing AutoCAD or AutoCAD LT, see Appendix A. Appendix A also covers configuring the software and printers or plotters. ■

By default, installing AutoCAD or AutoCAD LT places a shortcut on your desktop. You can double-click one of the shortcuts to launch the program that is installed on your machine, or use the Windows Start menu to choose one of the following:

- **For AutoCAD.** Start➪(All) Programs➪Autodesk➪AutoCAD 2012 – English➪AutoCAD 2012 – English (or as appropriate for your language)
- **For AutoCAD LT.** Start➪(All) Programs➪Autodesk➪AutoCAD LT 2012 – English➪AutoCAD LT 2012 – English (or as appropriate for your language)

New Feature

When you first open AutoCAD or AutoCAD LT, the Autodesk Exchange window appears, providing access to the Help feature, related applications for purchase, training, tips, and more. To close the window, click its Close button. If you don't want to see this window when you open AutoCAD, uncheck the Show This Window at Start Up check box at the lower-left corner of the window. To display the Autodesk Exchange window at any time, click the Exchange button on the right side of the title bar (see Figure 1.1). ■

Creating a New Drawing

After you launch AutoCAD or AutoCAD LT, it automatically opens a new drawing named `Drawing1.dwg`. You can see the drawing name on the title bar. You can start drawing immediately. In Chapter 2, I explain how to start a drawing based on a template and how to open an existing drawing.

STEPS: Starting AutoCAD or AutoCAD LT

1. Click Start on the Windows task bar at the bottom of your screen.
2. Choose one of the following:
   - **For AutoCAD.** Start➪(All) Programs➪Autodesk➪AutoCAD 2012 – English➪AutoCAD 2012 – English
   - **For AutoCAD LT.** Start➪(All) Programs➪Autodesk➪AutoCAD LT 2012 – English➪AutoCAD LT 2012 – English

   You see a blank drawing named `Drawing1.dwg`.

If you are continuing with this chapter, keep this drawing open. I cover exiting from AutoCAD and AutoCAD LT later in this chapter.

Using the AutoCAD and AutoCAD LT Interface

AutoCAD offers four quite different preset *workspaces*, depending on how you want to work. For example, these workspaces determine the Ribbon components, toolbars, and other interface items that you see. AutoCAD offers both 2D and 3D environments. AutoCAD LT has only 2D environments, and the 2D environments for AutoCAD and AutoCAD LT are similar. In this section, I discuss the 2D environment. Both AutoCAD and AutoCAD LT offer two 2D workspaces: Drafting & Annotation and AutoCAD (or AutoCAD LT) Classic. The Drafting & Annotation workspace is the default workspace and displays the Ribbon for executing commands. The AutoCAD Classic and AutoCAD LT Classic workspaces display toolbars and a menu instead.

Note

AutoCAD's 3D Modeling and 3D Basics workspaces create a 3D environment along with the 3D drawing templates `acad3D.dwt` and `acadiso3D.dwt`. (I cover templates in Chapter 2.) I cover this 3D environment in Part IV, "Drawing in Three Dimensions." ■

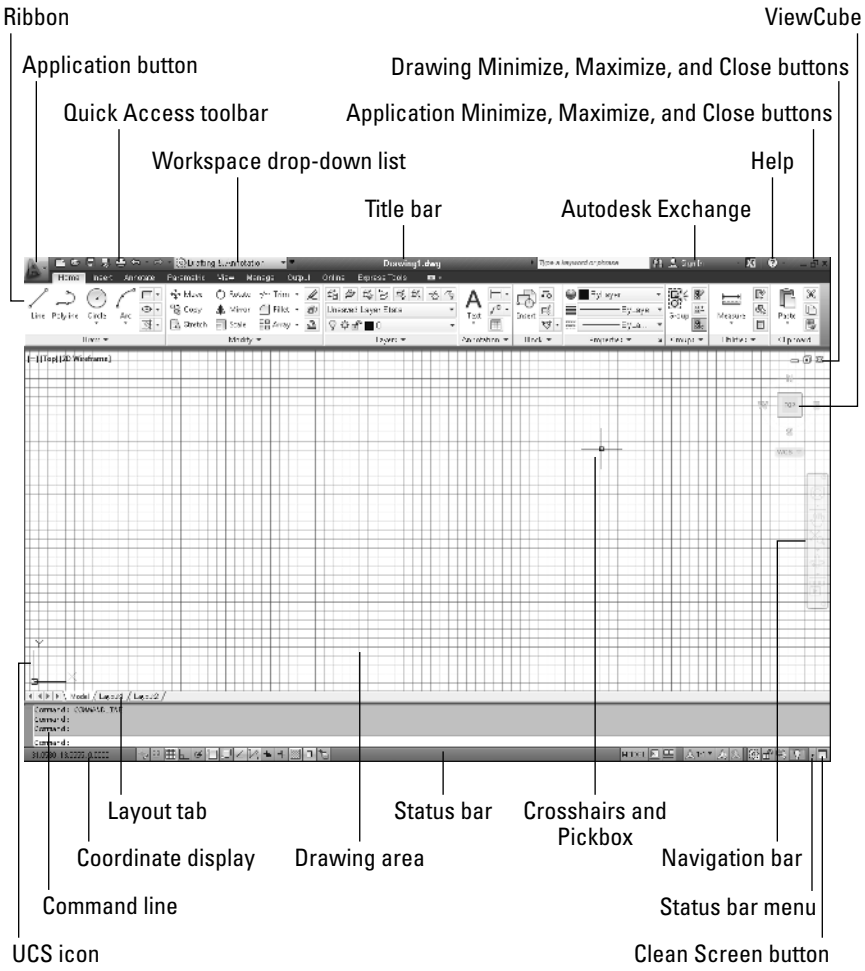
Figure 1.1 shows the default screen that appears when you first open AutoCAD or AutoCAD LT. Your screen may look somewhat different — remember that AutoCAD and AutoCAD LT can be customized in many ways — but the general features will be the same. If you see other items open on your screen, you can close all these items by clicking their Close (X) button.

Note

By default, you see a grid when you open AutoCAD. I explain how to turn off the grid in Chapter 4. The default screen color is dark gray. You can leave it that way or change the drawing area color, as I explain in Appendix A. I use a white background for the figures in this book for clarity. ■

FIGURE 1.1

The AutoCAD and AutoCAD LT screens are very similar. The AutoCAD LT screen doesn't include the Express Tools tab on the Ribbon.



If you find yourself in a 3D environment in AutoCAD, you'll see a gray background and a perspective view. To work in 2D in AutoCAD, switch to a 2D environment, following these steps in AutoCAD:

1. From the Workspace drop-down list, choose Drafting & Annotation. This displays the Ribbon with 2D commands.
2. Choose Application Button➪New. From the Select Template dialog box, choose `acad.dwt` and click Open. This places you in a 2D view.

The AutoCAD and AutoCAD LT screens consist of four important areas. These are discussed in the following sections.

Exploring the drawing area

The blank area in the middle of the screen, called the *graphics window* or *drawing area,* is where you draw. You can think of this as a sheet of drafting paper, except that this piece of paper can be any size — even the size of a huge factory or an entire county!

By default, you draw in *model space,* so called because that's where you draw your models. When you create a new drawing, by default, you are in model space, so you can just start drawing. You can lay out your drawings for plotting in *paper space,* also called a *layout.* To switch from model space to a layout, you use the Layout tab at the bottom of the drawing area. You click the Model tab to switch back to model space. (See Chapter 17 for details.)

Note

Rather than the model and layout tabs, you may see `Model` and `Layout1` buttons on the status bar. You can switch between the buttons and tabs by right-clicking either feature and choosing from the shortcut menu. ■

When you start to draw, you need to specify where to start drawing. One way is to use coordinates. To specify a coordinate, the universally accepted convention is to put the X coordinate first, followed by a comma, and then the Y coordinate. Examples are –3,5, 3,2, 6,–2, and –1,–1. These coordinates specify points in the drawing area. You can see the current coordinates of the cursor displayed at the lower-left corner of the AutoCAD window.

Cross-Reference

Chapter 4 explains how to specify coordinates. To create three-dimensional models, you need to add a Z coordinate when specifying a point. Chapter 21 discusses three-dimensional coordinates. ■

Tip

If you want the maximum amount of free space for drawing, click the Clean Screen button at the right side of the status bar to remove the Ribbon. Click the same button to get it back. You can also press Ctrl+0 to toggle between the two displays. You can double-click the active tab to cycle through three display states of the Ribbon that collapse and expand the Ribbon. ■

The UCS icon

Notice the symbol with two perpendicular lines and X and Y labels in the drawing area in Figure 1.1. This symbol is called the User Coordinate System (UCS) icon. The lines point to the positive directions of the X and Y axes to help you keep your bearings. (In a 3D environment, you see a Z axis as well.) You can change the look of this icon, and turn it on and off, as I explain in Chapter 8.

The crosshairs

In the drawing area of Figure 1.1, notice the intersecting lines with a small box at their intersection. The small box is called the *pickbox* because it helps you to select, or pick, objects. The lines are called *crosshairs.* They show you the location of the mouse cursor in relation to other objects in your drawing.

The ViewCube and Navigation Bar

On the right side of the drawing area, semi-faded, you see two navigational tools, the ViewCube and the Navigation Bar (or NavBar). The ViewCube is not available in AutoCAD LT. These are mostly used for 3D navigation, which I cover in Chapter 22. You can use the NavBar to zoom and pan in 2D; see Chapter 8 for more information.

Exploring the Ribbon and Quick Access Toolbar

At the top of the application window is the title bar, and directly beneath the title bar is the Ribbon. On the left side of the title bar is the Quick Access Toolbar. The Ribbon has tabs, and each tab is divided into control panels (usually called just panels), which are sections of related commands. I explain how to work with the Ribbon and the Quick Access Toolbar in Chapter 3.

Note

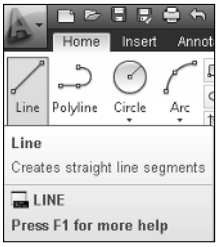
The AutoCAD Classic and AutoCAD LT Classic workspaces do not show the Ribbon; instead, you see toolbars, which are usually docked along the left, top, and right sides of the screen. From the Workspace drop-down list (just to the left of the Quick Access Toolbar), try switching between the Drafting & Annotation workspace and the AutoCAD or AutoCAD LT Classic workspace to see which one you prefer. In Appendix A, I explain how to customize workspaces. ■

On the Home tab, in the Draw panel of the Ribbon, hover the cursor over the leftmost button. You see a tooltip that says Line, as shown in Figure 1.2. Below the tooltip, a description tells you that this button creates straight-line segments. If you continue to hover the cursor over the Line button, the tooltip expands to provide more information about the command.

You use buttons on the Ribbon to execute commands. For example, to draw a line, you click the Line button on the Draw panel of the Ribbon's Home tab. You get some practice drawing lines in the exercise that follows. (In the AutoCAD Classic or AutoCAD LT Classic workspace, you would click the Line button on the Draw toolbar to draw a line.)

FIGURE 1.2

Hovering the cursor over the Line button displays a tooltip that shows the command and a description of its function.



Note

If you inadvertently start a command that you don't want to use, press Esc. ■

The Quick Access Toolbar contains a few often-used commands that are useful to have available all the time. Examples are commands to start a new drawing, open an existing drawing, and save a drawing.

Because you can customize the Ribbon and the Quick Access Toolbar to suit your needs, your screen may appear somewhat different. (See Chapter 29 for information on customizing the Quick Access Toolbar, and see Chapter 33 for information on customizing the Ribbon.) Remember that if the current workspace is AutoCAD Classic or AutoCAD LT Classic, you won't see the Ribbon or Quick Access Toolbar; instead, you'll see a menu bar at the top and several toolbars.

Tip

You can lock the position of Ribbon panels (if they're not docked), toolbars, and windows (palettes). On the right side of the status bar, at the bottom of the screen, is a Lock icon. Click this icon to open a menu allowing you to individually lock specific window, panel, or toolbar components. You can also choose the All option and lock or unlock everything. Locking these interface components prevents you from moving them inadvertently. ■

Using the Application menu

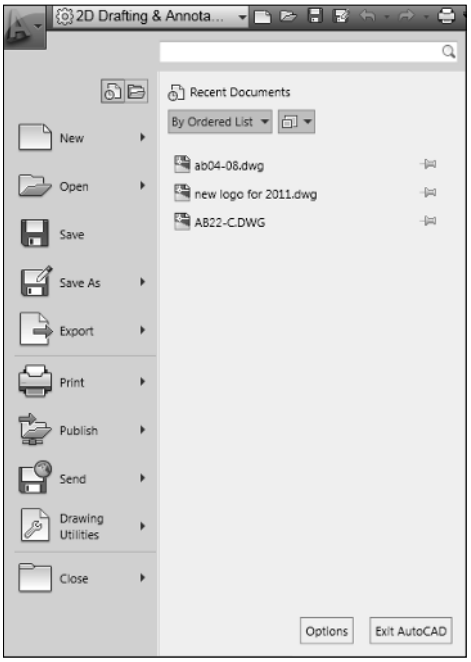
When you click the Application Button, the Application menu opens, giving you access to file-related commands, as shown in Figure 1.3.

Tip

You can display the menu bar along with the Ribbon. Type menubar ↵ on the command line, and then enter 1 ↵. To hide the menu bar, enter 0 ↵. Alternatively, you can click the down arrow at the right end of the Quick Access Toolbar, and choose Show Menu Bar. Choose Hide Menu Bar to hide it. ■

FIGURE 1.3

The Application Button offers file-related commands, recently opened drawings, access to other open drawings, and a Search box.



When you open the Application menu, you can type a search term in the Search text box to find a command. On the right, you see a list of drawings that you opened recently. At the top of the list of drawings, you can click a drop-down arrow to choose to display them alphabetically *(ordered list),* by date, or by type. To the right, you can click a drop-down arrow to display the drawings as icons, or as

small, medium, or large images. However, even if you display just icons, if you hover the cursor over any drawing name, an image of the drawing appears.

Tip

Click the Open Documents button to show open drawings rather than recently used drawings. ■

The Options button, at the bottom of the Application menu, opens the Options dialog box where you can specify many settings that affect how AutoCAD works. I explain the Options dialog box in detail in Appendix A.

Using the command line and dynamic input tooltip

At the bottom of the drawing area, you see a separate window showing approximately three lines of text. (You can change it to show as many lines as you like by dragging the top edge of the window up or down.) Notice the word `Command:`. This is the *command line.* You can execute any command by typing it on the command line.

Even if you use a menu item or the Ribbon to execute a command, you may see a response on the command line. AutoCAD and AutoCAD LT often provide options that you must type on the keyboard. Text that you type appears on the command line. For example, when you type coordinates specifying a point, they appear on the command line.

The Dynamic Input tooltip allows you to see the text that you type at the cursor. This tooltip doesn't appear until you start typing a command. You can also choose options near the tooltip. (For more information, see Chapter 3.)

To see more of the command line, press F2 to open the AutoCAD or AutoCAD LT Text Window. You can scroll back through previous commands. Press F2 again to close the window. You can also simply hide the Text window by clicking in the AutoCAD or AutoCAD LT window for easy access to the Text window later from the Windows task bar.

Exploring the status bar

At the very bottom of the screen is the *status bar* (refer to Figure 1.1). At the left are the X,Y coordinates. As you move your mouse, these coordinates change. (If they don't change, click them and move your mouse again.) The status bar also contains a number of buttons that I explain later in this book.

At the right side of the status bar is a small down arrow. Click it to open the status bar menu. This menu determines which buttons appear on the status bar. If you don't use a certain button, choose it on the menu to remove its checkmark and make it disappear. You can always go back and choose the item again to redisplay the button.

Creating a New Folder

For your work with this book, you should create a new folder so that you can save your exercise drawings where they won't get mixed up with other drawings. The following directions leave it up to you where to create this new folder. Each computer system is organized differently. If you aren't sure what to do, choose the drive (not the folder) where AutoCAD or AutoCAD LT is installed and create a new folder there.

Caution

I do not recommend creating a subfolder in the `AutoCAD 2012` or `AutoCAD LT 2012` folder. These folders contain the files that make up the program. If you keep your drawings here, it is too easy to make a mistake and delete necessary program files. Some people create a subfolder in the `My Documents` or `Documents` folder. ■

STEPS: Creating a New Folder

1. Move the cursor to the Windows task bar at the bottom of your screen and right-click the Start button.
2. Choose Explore.
3. On the left pane of Windows Explorer, click the drive where you want to create the new folder. If you don't know where to create the folder, choose the drive where AutoCAD or AutoCAD LT is installed. If you're on a network, choose the drive that represents your computer. If you keep your work in subfolders of the `My Documents` or `Documents` folder, click that folder.
4. If you want to make a *subfolder* (a folder within a folder), choose the folder where you want to create the subfolder.
5. From the Explorer menu, choose File➪New➪Folder. (In Windows Vista, click Organize➪New Folder; in Windows 7, click New Folder.) A new, highlighted folder, named `New Folder`, appears in the right pane. You may have to scroll down to see it.
6. Type **AutoCAD Bible** for the folder name and press Enter. (If you did the exercises from a previous edition of this book, such as *AutoCAD 2011 and AutoCAD LT 2011 Bible,* and you already have a folder named `AutoCAD Bible`, first rename the original folder to something such as `ACAD2011Bible`.)

Save all drawings that you create for this book in your `AutoCAD Bible` folder.

Caution

Creating a folder for your drawings as described in the previous steps is essential before you go on to exercises in the rest of this book. ■

Using the Interface

If you did the Quick Start exercise, you had the experience of drawing a window, but I chose the simplest method of completing each task because I had not yet described the AutoCAD and AutoCAD LT application window. In the following exercise, you draw some simple objects, but experiment with all the features of the user interface to get a feel for how they work. (Chapter 3 explains in more detail how to use commands.) As explained in the Preface, you type what appears in **bold**.

Tip

Don't worry if you don't understand everything you're doing. It all becomes clear as you progress through this book. If you haven't read the Preface, now is a good time to go back and read the part that explains how to follow the exercises. ■

STEPS: Drawing a Line in Four Ways

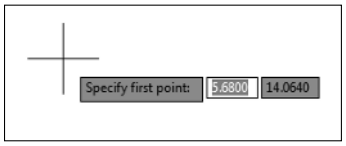
1. Start AutoCAD or AutoCAD LT. This exercise assumes you are using the default Drafting & Annotation workspace in a 2D environment.

   You see a new drawing. If you are prompted for a template, choose `acad.dwt` (for AutoCAD) or `acadlt.dwt` (for AutoCAD LT).

2. From the Ribbon, choose Home tab ➪ Draw panel ➪ Line.
3. Move your mouse to move the crosshairs cursor around the screen. Notice the Dynamic Input tooltip that follows the cursor around, as shown in Figure 1.4. (For this figure, I turned off the grid.) If you don't see the Dynamic Input tooltip, click the Dynamic Input button on the status bar. At the same time, notice the coordinates changing on the left side of the status bar.

FIGURE 1.4

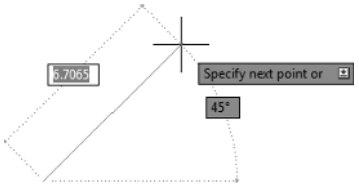
When you move the mouse, the Dynamic Input bar follows the cursor, displaying the current coordinates.



4. Anywhere on the screen, stop moving the mouse and click the left mouse button to pick a point. When you move the mouse again, the Dynamic Input bar changes to prompt you to specify the next point and to show you the angle and length of the cursor from the original point you picked, as shown in Figure 1.5.

FIGURE 1.5

After specifying the first point of a line, the Dynamic Input bar prompts you for the next point.



5. Pick any point to create a line segment. You see the same Dynamic Input tooltip as before, which means that you can continue to create more line segments. (Chapter 6 explains all about drawing lines.)
6. Press Enter to end the command and finish your line.
7. For your second line, type **menubar** ↵ and then type **1** ↵ on the command line. The menu bar appears at the top of the screen. From the menu, choose Draw ➪ Line. Again, pick any point on the screen.

8. Move your mouse so you can see the length and angle tooltips. Notice the value for the length. Now type a different value and press Enter. For example, if the Length tooltip says 13.7638, type **5** ↵.
9. Press Enter to end the command. The line's length is based on what you typed, not where the cursor was, but the line's angle is the same as it was before you typed in the length.
10. To hide the menu bar, click the down arrow at the right end of the Quick Access Toolbar and choose Hide Menu Bar near the bottom of the list of menu items.
11. For your third line, type **line** ↵. Notice that the text appears in the Dynamic Input tooltip as you type, but not in the command line area.
12. Press Enter. You now see the command that you typed in the command line area, as well as the Dynamic Input prompt to specify the first point.
13. Click in two places to pick a start point and an endpoint.
14. This time, to end the line, right-click anywhere in the drawing area. By default, this opens a shortcut menu, but it may end the command. If so, you're done. If you see the shortcut menu, choose Enter from the shortcut menu to end the command.
15. For your fourth line, click the Workspace drop-down list at the upper-left corner of your screen, and choose AutoCAD Classic or AutoCAD LT Classic. The entire interface changes: The Ribbon is gone, and in its place you see a menu bar at the top, and several toolbars. If you don't see the Draw toolbar (it's usually docked vertically on the left side of the application window), right-click any toolbar that is already displayed and choose Draw from the list of toolbars. Click the Line button on the Draw toolbar. Move the mouse so that the cursor is in the drawing area. Pick two different points and press Enter.
16. Use the Workspace drop-down list to return to the Drafting & Annotation workspace. Leave the drawing on your screen and complete the next exercise to save the drawing.

You should now have four lines on the screen. You can see how the interface offers several ways to work. You can use the method that suits you best.

Saving a Drawing

Saving a drawing is similar to saving any other file in Windows. You should get in the habit of saving your work every few minutes to avoid losing your work in case the software or your computer system crashes. Saving a drawing for the first time is different from saving it subsequently because you have to name the drawing.

To save a drawing, click Save on the Quick Access Toolbar or choose Application Button ➪ Save. If you're saving a drawing for the first time, the Save Drawing As dialog box appears, as shown in Figure 1.6.

Down the left side of the dialog box are several buttons, called the *Places list*, to help you find a location to save drawings more quickly.

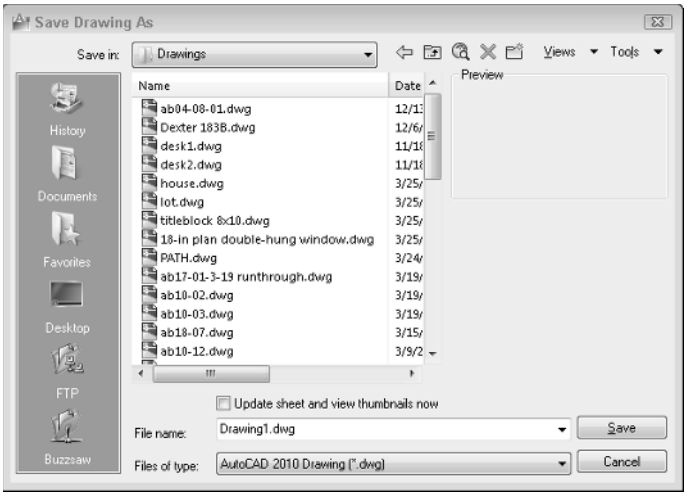
Tip

Conveniently, you can reorder the buttons in the Places list. Just drag any button to a new location. ■

Of course, you can also choose a location from the Save In drop-down list to which you want to save the file. To save a file, type a filename in the File Name text box and click Save to save the file.

FIGURE 1.6

The Save Drawing As dialog box



Use the Tools drop-down list of the Save Drawing As dialog box to do the following:

- **Add or Modify FTP Locations.** FTP sites are locations on the Internet for transferring files. To add or modify FTP locations, choose Tools➪Add/Modify FTP Locations. You need to list the name of the FTP site, choose a logon type (Anonymous or User), and specify your user name and password if you're logging on as a User. You can then save drawings (called *uploading*) to FTP locations by clicking the Save In drop-down list and choosing FTP Locations. This feature makes an intranet or any server with FTP capability as accessible as your own computer system.
- **Add Current Folder to Places.** If you save to a specific folder often, you can navigate to that folder and then choose Tools➪Add Current Folder to Places. The Places Bar then displays a new button for that folder so that you can easily click the button to go straight to the folder.
- **Add to Favorites.** When you have navigated to a folder, you can add it to the `Favorites` folder by choosing Tools➪Add to Favorites. You can also select a file in a folder and add it to the `Favorites` folder.
- **Options.** The Options dialog box opens, where you can specify certain settings relating to saving drawings. I discuss these options in Chapter 8 and Appendix A.
- **Security Options.** Choose this setting to set a password or attach a digital signature. I discuss these features in Chapter 26.

AutoCAD Only

The SAVEALL command of the Express Tools saves all open drawings, without closing them. Type saveall ↵ on the command line. If a drawing hasn't been saved, you are prompted for a filename. For information on installing Express Tools, see Appendix A. ■

On the DVD

The DVD includes a small program, `save2d.lsp`, that automatically backs up your drawing to the CD/DVD drive after you've saved it on your hard drive. Look in `\Software\Chapter 01\Save2d`. The file contains instructions for changing the drive to any letter you use (AutoCAD only). ■

STEPS: Saving a Drawing for the First Time

1. The four lines you created earlier in this chapter should still be on your screen. Click Save on the Quick Access Toolbar. The Save Drawing As dialog box opens.
2. Click the Save In drop-down list. If necessary, choose the drive where you created your `AutoCAD Bible` folder for this book.
3. Double-click the `AutoCAD Bible` folder.
4. In the File Name text box, select the default filename that appears. Type **ab01-01** and press Enter (or click Save).
5. Keep your drawing on the screen and go to the next exercise.

AutoCAD saves your drawing under the name `ab01-01.dwg`. This numbering system will help you organize your drawings from this book and find equivalent drawings on the DVD more easily. It just means that this is the first drawing from Chapter 1 of *AutoCAD 2012 and AutoCAD LT 2012 Bible*.

Closing a Drawing and Exiting from AutoCAD and AutoCAD LT

You can close your drawing and keep AutoCAD or AutoCAD LT open. The simplest way to do this is to use the Drawing Close button at the upper-right corner of the drawing. To exit AutoCAD or AutoCAD LT, click the Close (X) box at the top-right corner of your screen. You can also exit out of AutoCAD or AutoCAD LT by typing **quit** ↵ on the command line. If you've made any changes to your drawing since last saving it, AutoCAD or AutoCAD LT asks you if you want to save your changes. Choose Yes or No as your situation requires. If you have opened more than one drawing to which you have made changes, you have a chance to save each drawing in turn.

Tip

You can double-click the Application button to close AutoCAD. This is equivalent to typing quit. ■

STEPS: Closing Your Drawing and Exiting AutoCAD or AutoCAD LT

1. Your drawing should still be on your screen. Choose Application Button ➪ Close. You now see a gray screen with no drawing. (Repeat this process if you have other drawings open. Save or cancel the changes to these extra open drawings as you like.)
2. Click the Close button in the upper-right corner to exit AutoCAD or AutoCAD LT.

Summary

In Chapter 1, I explained how to start AutoCAD and AutoCAD LT and create a new drawing. I gave you a tour of the screen and explained how to save a drawing. This chapter provided the basis for all your work in AutoCAD and AutoCAD LT.

In this chapter, you learned the following:

- A brief history of AutoCAD and AutoCAD LT
- Some of the different disciplines that use AutoCAD and AutoCAD LT
- How to start AutoCAD and AutoCAD LT
- How to start a new drawing
- The user interface and its various sections, including the drawing area, the UCS icon, the crosshairs, the Ribbon, the Quick Access Toolbar, the command line, and the status bar
- How to start a command from the Ribbon, menu, command line, and toolbar
- How to save a drawing for the first time
- How to close a drawing and exit AutoCAD and AutoCAD LT

You may have several questions at this point, but "well begun is half done." The next chapter explains all the ways to start a new drawing as well as how to open an existing drawing.